



City Council of Gibraltar.

ANNUAL REPORT

ON THE

HEALTH OF GIBRALTAR

FOR THE YEAR

1939

BY

Major R. A. MANSELL, M.B.E., M.B., D.P.H., D.T.M. & H.,
Royal Army Medical Corps.
Medical Officer of Health

with which is included
the Report of the City Analyst and Bacteriologist,
and the Report of the Veterinary Adviser.

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†||Cert. Inspector of Meat and Other Foods.

*Occasional.

‡xMainly maintained by Government Grants.

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Medical Inspector of Schools.

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*J. DOTTO, Esq., M.R.C.S., L.R.C.P.

School Dentist.

J. GARESSE, Esq.

* Allowance paid to private medical practitioners as a retaining fee for their services.

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The Deputy Director of Medical Services.

The Senior Naval Medical Officer, Gibraltar Command.

The Captain of the Port.

The Port Surgeon.

The Senior Medical Officer, Colonial Hospital.

The Medical Officer of Health.

The Chairman, City Council.

The President, Exchange Committee.

The President, Chamber of Commerce.

Secretary—H. J. S. NORTON, Esq., O.B.E.



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PREFACE

	1939	Average 1929-1938
Birth rate	20.85	22.28
Death rate	15.22	15.64
Zymotic death rate	0.77	0.49
Infantile mortality rate ...	79.36	60.57
Notifiable infectious diseases	93 cases—the lowest number for over 50 years.	

Considerations of economy require that this Report should consist largely of bare statistical records such as the above. This is to be regretted because it is not always easy for the man in the street to decide exactly what figures of this kind may mean nor, when he does appreciate from them that some improvement is somewhere desirable, to see how and where best to initiate action to that end. Reports like this should provide guidance where action clearly should or might be taken for the benefit of the community no less than record of accomplished fact and criticism of detrimental act—or omission to act.

If we remember that each and everyone of us is represented individually in the figures recorded—either as an unfortunate sufferer or as one who has escaped, perhaps even been helped from, suffering—then we may be the more prepared to lend our weight personally in the assistance of the small staff of specialists whose duty it is to keep watch over and to guide measures for the benefit of the Public Health. For it is true that, even with drastic and dictatorial powers, it is difficult for a few permanently to bring benefit to the many unless these latter both agree, and will actively help, in measures planned for the improvement of their state.

It is equally true that always improvement is first needed where conditions are worst. This appears so obvious when stated that we need, I think, to remind ourselves how often we neglect to bear it in mind in our plannings. I venture to suggest that, in matters of public health at any rate, one reason why we may do so is that sometimes we do not know—or often we do not like to think—of how bad some of these conditions are.

At the termination of my period of office here I take this opportunity to express my very sincere gratitude to the many who officially, privately or in the Press have made my work easy: that they have thus enabled work for the betterment of all is, of itself, a great reward.

*R. A. MANSELL,
Major R.A.M.C.,
Medical Officer of Health.*

*Public Health Department,
City Council of Gibraltar,
1st May, 1940.*

CITY COUNCIL OF GIBRALTAR

PUBLIC HEALTH DEPARTMENT

SUMMARY OF VITAL STATISTICS FOR 1939.

Total area of Gibraltar Territory	{ 1,387 acres, 2 roods, 3 poles
Area of the City	{ 104 acres, 3 roods, 33 poles.
Estimated Total Civil Population of Gibraltar	20,440	persons.
Estimated Fixed Civil Population of Gibraltar	18,125	persons
Births in Fixed Civil Population	{ 173 Males. 205 Females.
Total Births	442.
Birth rate per 1,000 of Fixed Civil Population		20.85.
Deaths in Fixed Civil Population	328.
Crude death rate per 1,000 of Total Civil Population...	{ 14.25.
Average crude death rate for previous ten years	{ 14.94.
Death rate from Pulmonary Tuberculosis	'8 per 1,000.
Infantile Mortality rate	79.36 per 1,000 births.

METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1939

The following Weather Summary and Tables have been supplied by the Air Ministry Meteorologist at Gibraltar and are published with his permission. The location and methods of recording these observations are the same as were described in detail in the Report for 1938.

WEATHER SUMMARY FOR THE YEAR 1939

Features of particular interest which marked the opening quarter of the year were the continuation of the seasonal rainfall deficit, which accumulated to nearly 12 inches by April 1st, the occurrence of a south-westerly gale on 22nd February culminating in a gust of 82 m.p.h. and the persistence of an easterly gale for 29 hours in the middle of March.

An unsettled period prevailing during the first half of April provided slightly more rain than the average for the month. Although the fall for May was again below the normal June was rather more unsettled than usual and the storm during the night of the 24th was most unusual for so late in the season. No measurable precipitation fell from 25th June to 20th September; the intermediate period experienced normal conditions, relatively brief periods of easterlies and westerlies alternating with each other. On 21st September the winter rain season commenced and continued with little break until the end of the year. Each of the last four months of the year yielded a considerable fall of rain and at the end of the year the seasonal total stood at 18.48 ins., two inches above the average, whereas the yearly total remained at nearly 9 inches below the normal.

Particularly noticeable is the absence of any prolonged period of Levanter during the last quarter of the year.

LAT. 36 6'N. LONG. 5 21'W.

WINDMILL HILL FLATS.

HEIGHT: 393 FEET ABOVE M.S.L.

Months at MSL	TEMPERATURE °F										REL. HUMIDITY (°/o)			CLOUD AMOUNT (0-10/10)			RAINFALL (mm.)							
	MEANS					HIGHEST		LOWEST																
	Dry Bulb			Mean of A. and B	Average from A. and B	Max.	Date	Min.	Date	Min on grass	7h	13h	18h	Total mm.	Max. in 24h.	Date								
	7h	13h	18h																					
Jan.....	m.b. 1019.9	53.1	57.8	56.6	55.6	59.7	51.5	55.6	+0.2	68	16, 17	43	3	38	4	81	68	69	4.7	5.0	5.1	63.5	16.4	31
Feb.....	1021.4	52.4	57.2	55.2	54.7	58.6	50.7	54.7	-1.0	63	13, 14	42	25	36	13, 15	78	71	75	5.3	5.2	4.8	83.3	19.8	2
Mar.....	1017.3	52.0	58.5	56.7	55.5	60.4	50.7	55.5	-2.4	70	7	41	20	31	20	73	61	65	4.3	4.3	3.5	45.2	30.3	30
April ...	1016.0	54.7	60.6	59.4	57.9	62.5	53.2	57.9	-2.8	72	23	48	1	42	22	77	66	68	4.6	4.4	3.5	75.9	27.7	5
May ...	1015.0	58.9	64.6	63.0	61.6	66.3	56.9	61.6	-3.8	77	23	49	2, 3	45	1,2,10	69	59	66	3.3	3.9	2.9	11.7	10.2	5
June ...	1016.0	63.3	70.4	69.0	67.0	72.7	61.3	67.0	-3.1	83	21	56	5	45	5	82	63	66	4.0	4.0	2.4	17.5	8.0	24
July ...	1016.5	67.5	73.4	72.9	70.8	76.3	65.3	70.8	-3.9	88	10	62	16, 18 22, 23	54	23,24	83	67	67	4.4	3.3	2.0	0.2	0.2	2
Aug.....	1015.4	68.0	74.3	73.0	71.9	77.3	66.4	71.9	-4.4	81	12, 24 27	63	6, 22 29	54	26	82	67	68	3.3	2.9	2.0	Tr.	Tr.	29
Sept ...	1015.2	67.1	73.5	70.8	70.5	75.6	65.3	70.5	-2.4	85	1	59	19	54	24	80	66	72	4.7	4.3	3.5	37.4	11.8	27
Oct	1015.1	61.7	67.2	65.1	64.5	68.9	60.2	64.5	-3.6	77	3	51	28, 29	47	29	82	69	74	6.3	5.3	5.3	161.5	32.1	4
Nov.....	1020.5	57.7	62.7	60.0	60.3	64.4	56.1	60.3	-0.0	70	16	51	25	41	21	82	72	79	5.3	4.6	3.6	75.4	23.9	10
Dec ...	1018.0	53.3	57.7	55.7	55.5	59.4	51.6	55.5	-1.4	65	1, 2	46	8	39	8	79	70	77	5.6	5.4	5.0	195.6	57.7	24
Year ...	1017.2	59.1	64.8	63.1	62.1	66.8	57.4	62.1	-2.4	88	July 10	41	Mar. 20	31	Mar. 20	79	67	71	4.7	4.4	3.6	767.2	57.7	Dec. 24

Months	SUNSHINE		WEATHER							WIND: No. OF OBSERVATIONS OF													
	Daily Mean (hrs)	c/° of Poss.	Rain	Snow	No. of Days of		Over-cast Sky	Gales	Fog	Frost	Forces			DIRECTIONS									
					Hail	Thun-Clear der					4 to 7	1 to 3	Calm	N	NE	E	SE	S	SW	W	NW		
Jan: ...	5'87	58'1	11	0	0	1	3	1	1	0	0	0	55	33	5	0	5	6	0	0	10	53	14
Feb. ...	6'36	58'3	10	0	0	0	3	2	1	0	0	1	38	34	11	5	15	16	2	1	4	21	9
Mar. ...	8'86	74'2	5	0	1	1	8	2	3	0	0	2	42	42	7	7	8	31	2	0	2	15	21
April ...	9'49	72'8	8	0	1	1	4	1	2	1	0	3	48	37	2	1	13	10	0	0	4	37	23
May ...	11'08	79'2	3	0	0	0	9	1	0	0	0	0	38	51	4	3	22	12	0	0	4	28	20
June ...	10'84	74'9	4	0	0	0	7	0	0	1	0	0	23	54	13	3	4	13	3	0	3	24	27
July ...	10'23	71'5	1	0	0	0	14	0	0	2	0	0	27	57	9	1	20	28	3	0	1	17	14
Aug. ...	10'68	79'3	0	0	0	0	11	1	0	1	0	0	16	69	8	3	12	24	2	0	4	14	26
Sept. ...	9'03	72'7	8	0	0	1	6	2	0	1	0	0	16	62	12	2	12	19	2	1	1	12	29
Oct. ...	6'31	55'6	16	0	0	5	5	5	0	2	0	0	21	60	12	4	18	10	1	1	3	19	25
Nov. ...	6'73	65'1	8	0	0	2	5	2	0	1	0	0	27	56	7	6	18	11	0	0	4	23	21
Dec. ...	5'34	54'0	12	0	1	2	3	7	0	0	0	0	39	50	4	4	3	11	3	0	5	35	30
Year ...	8'40	68'0	86	0	2	13	78	24	7	9	0	6	390	605	94	39	150	191	18	3	43	298	259

VITAL STATISTICS

The population of the Colony, exclusive of the personnel of H.M. fighting Services, was estimated by the Police at the end of 1939 to be:—

British Subjects:

Gibraltarians	16,469
Others	1,578
Resident in the Bay	78
Total British Subjects							18,125

Aliens:

Resident in the Colony	2,098
Resident in the Bay	217
Total Aliens						2,315
Total Population						20,440

The alterations in the population during recent years have been:—

How estimated.	British Subjects Fixed Population.	Alien Subjects Floating Population.	Total Population.
Census June, 1921	16,753	1,787	18,540
Police Estimate at end of 1922	16,182	1,145	17,327
Police Estimate at end of 1923	16,165	1,181	17,346
Police Estimate at end of 1924	16,177	1,147	17,324
Police Estimate at end of 1925	16,127	1,161	17,288
Police Estimate at end of 1926	16,150	1,013	17,163
Police Estimate at end of 1927	16,120	1,076	17,196
Police Estimate at end of 1928	15,719	1,112	16,831
Police Estimate at end of 1929	15,647	1,052	16,699
Police Estimate at end of 1930	15,526	922	16,448
Census April 1931	16,188	1,425	17,613
Police Estimate at end of 1932	15,143	1,466	16,609
Police Estimate at end of 1933	15,071	1,326	16,397
Police Estimate at end of 1934	14,790	1,057	15,847
Police Estimate at end of 1935	15,735	1,130	16,865
Police Estimate at end of 1936	16,875	2,319	19,194
Police Estimate at end of 1937	16,792	2,749	19,541
Police Estimate at end of 1938	17,222	3,017	20,239
Police Estimate at end of 1939	18,125	2,315	20,440

VITAL STATISTICS DURING 1939 AND PREVIOUS TEN YEARS.

Year	Population.			Deaths.				Infantile Mortality.		Births.		Zymotic Mortality.	
	Fixed.	Total.	How Estimated.	Fixed population. No.	Total population. No.	Rate per 1,000 of population.		No.	Rate per 1,000 births.	No.	Birth rate per 1,000 living of fixed population.	No.	Rate per 1,000 living of fixed population
						Fixed population.	Total population.						
1929	15647	16699	} Police Estimate	254	262	16.36	15.68	18	46.6	388	24.7	10	.63
1930	15526	16448		240	240	15.6	14.5	25	71.3	349	22.4	8	.51
1931	16188	17613	Census	250	254	15.4	14.4	23	61.0	377	23.28	4	.24
1932	15143	16609	} Police Estimate	245	259	16.17	15.59	21	60.69	346	22.84	16	.96
1933	15071	16397		241	245	15.99	14.94	14	39.2	357	23.68	3	.18
1934	14790	15847		225	230	15.21	14.51	21	54.8	383	25.8	6	.37
1935	15735	16865	**	255	265	16.20	15.71	18	67.4	267	16.9	6	.35
1936	15735	16865		249	261	15.82	15.47	19	62.09	304	19.30	13	.77
1937	16792	19541	} Police Estimate	256	292	15.24	14.93	26	68.24	381	22.69	10	.51
1938	17222	20239		246	278	14.28	13.74	27	74.38	363	21.07	6	.34
1939	18125	20440		276	296	15.22	14.25	30	79.36	378	20.85	14	.77

**Normally resident population.

It will be seen by reference to the Table immediately preceeding that, with the marked exception of infantile mortality, the year 1939 has been—statistically at any rate—a satisfactorily healthy one. I insert this note here, out of the routine of the text of these Reports for many years past, for the sole purpose of emphasizing, as I have tried to do for the past two years, that a rising death rate amongst infants under one year of age is in itself a grave charge against the public health organisation and administration of a community. It is evidence of failure to take advantage, at one or more points, of the weapons of defence which modern hygiene has placed in the hands not only of those especially charged with the direction of the fight against disease, disability and death, but also of those in executive control of the lives and destinies of the population. Prophecy of impending disaster and advice as to the means of escaping it have little or no practical value to the potential victims unless the first is believed and the second accepted by those who have the power to act. I have written before that this Colony has been lucky in escaping the devastation of epidemic disease: it is now happier, as will be seen in later sections of this Report, in that executive authority is, at last, moving actively for the betterment of conditions long a risk to the community as a whole. Citizens may now hope that, in the absence of any of the peculiar risks which attend general states of war and disturbance, conditions of health and healthy living will improve.

Deaths:

The resident British population provided 276 deaths, amounting to 15.22 per 1,000, and resident aliens produced 20, equalling 8.6 per 1,000. The total civil death rate per 1,000 was 14.25.

The principal causes of death were:—

(1) Heart diseases	61 cases
(2) Cerebral hæmorrhage	33 „
(3) Cancer	27 „
(4) Diarrhœa and Enteritis	16 „
(5) Pneumonia } Nephritis }	15 cases each

Approximately one half of the female deaths and one-third of the male occurred at 65 years of age and over.

The crude death rate over the past ten years has been:—

Year	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Fixed Population	15.60	15.40	16.17	15.99	15.21	16.20	15.82	15.24	14.28	15.22
Total Population	14.50	14.40	15.59	14.94	14.51	15.71	15.57	14.93	13.73	14.25

The numbers of deaths in each month and quarter of the year was as follows:—

January	31	April	31	July	29	Oct.	36
February	26	May	23	Aug.	22	Nov.	33
March	29	June	23	Sept.	27	Dec.	35
	—		—		—		—
	86		77		78		104
	—		—		—		—

Causes of deaths in 1939 in Civil population, according to the international Abbreviated List with Age and Sex incidence.

Cause of Death.		All Ages	Under 1 year.		1 year and under 2.		2 years and under 5.		5 years and under 15		15 years and under 25		25 years and under 45		45 years and under 55		55 years and under 65		65 years and over	
			M F		M F		M F		M F		M F		M F		M F		M F		M F	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1 Enteric Fever ...	1	1									1									
9 Influenza ...	4	4													1		1	1	1	1
13 Tuberculosis of resp. system ...	10	10									1	2	2	2			1		2	
14 Tuberculosis of nervous system	1	1									1									
15 Other tuberculous diseases	2	2					1				1									
16 Cancer, Malignant tumours...	27	27											1	1	5	3	4	4	9	
17 Meningitis ...	1	1			1															
18 Haemorrhage, apoplexy, and softening of brain ...	33	33	2						1		1		2		3		3	4	6	11
19 Heart diseases	61	61							1				3	1	3	10	7	11	25	
20 Acute bronchitis	2	2		1															1	
21 Chronic bronch.	13	13															2	1	2	8
22 Pneumonia ...	15	15	1	2	1		1	1									1		6	2
23 Other diseases of the respiratory system ...	7	7	1												1	2	1	1	1	
24 Diseases of the stomach ...	4	4										2		1					1	
5 Diarrhoea and Enteritis ...	16	16	3	10	1						1	1								
26 Appendicitis and typhlitis ...	2	2							1				1							
27 Hernia, intestinal obstruction	4	4											1		1		1		1	
28 Cirrhosis of liver	6	6										2					1		3	
29 Acute and chronic nephritis...	15	15									1		2	1	1	1	3	3	2	1
31 Puerperal Sepsis	1	1											1							
33 Congenital debility and malformations ...	9	9	8	1																
34 Old Age...	9	9																	2	7
35 Violent deaths (suicide excluded)	4	4											1				3			
37 Other diseases...	45	45	1				2		1				6	1	6	1	4	5	11	7
38 Diseases not stated or ill-defined ...	4	4													2	1	1			
Totals...	296	296	16	14	3		4	1	2	2	5	4	22	9	12	15	33	29	49	77

Births and Infantile Mortality:

The fixed population provided 378 births—173 males and 205 females—which gave a rate of 20.85 per 1,000.

Thirty infants died before completing their first year of life. The infantile mortality rate of 79.36 per 1,000 live births is the highest since 1928. This rate has been mounting steadily for the past four years in parallel with the grossly overcrowded condition of the City.

CAUSES OF INFANT DEATHS.

Cause of Death.	Under 1 week.	1 week and under 2.	2 weeks and under 3.	3 weeks and under 4.	Total under 4 weeks.	1 month and under 3.	3 months and under 6.	6 months and under 9.	9 months and under 12.	Total under 1 year.
Pneumonia	—	—	—	—	—	1	1	1	—	3
Congenital Debility and Malformations	10	—	3	—	13	—	—	—	—	13
Bronchitis	—	—	—	—	—	—	—	1	—	1
Gastro Enteritis	—	—	—	1	1	1	3	4	3	12
Other Causes	—	—	—	—	—	—	—	1	—	1
Totals	10	—	3	1	14	2	4	7	3	30

What I wrote under this heading in my Report on 1938 is all the commentary—and condemnation—that can be made on this result.

Maternity Services:

Admissions to Maternity Ward, Colonial Hospital; 246 residents—providing 213 live births, 70 non-residents—providing 62 live births.

The births in this ward from residents represent 56.3 per cent. of the total proper to this group.

Registered midwives attended 129 live births—34.1 per cent. of the total.

Twenty-two still-births were recorded. These together with thirteen infantile deaths within the first week of life from congenital causes total 35. This figure is 8.7 per cent of the live births and is, to some extent, a register of the adverse conditions under which the next generation is bred. Corresponding figures for the preceeding five years—two before and three since the Spanish war—are:—

	Still births.	Deaths from congenital causes within the first week of life.	Percentage of total births.
1934	13	4	4.3
1935	22	4	8.9
1936	23	6	6.6
1937	24	9	7.2
1938	15	10	5.5

Two cases of puerperal sepsis were reported during the year—one in the Colonial Hospital and one attended by a registered midwife. Detailed investigations were conducted into both cases without any definite result as regards incriminating any outside source of infection.

Fifteen cases were provided with free attention by the midwife engaged by the Council from funds provided by the Government.

Child Welfare Centre:

Average attendance 108 (103 in 1938)

Issues of milk—equivalent to approximately 15,407 pints
(18,256 in 1938)

Home visits by nurse from the Centre 396 (434 in 1938)

From these brief records the utility of the Centre can be imagined: 1938 was a record over all previous years and 1939 has beaten it. We have as a motto that we do not allow an infant to go backwards. Other aids to infants' nutrition than advice, visiting and milk are issued, as are these former, free and at costs below wholesale rates by the kindness of the importing firms. Our success is due to the very high standard of care for infant life which is a characteristic of Gibraltarians, and to the care and attention of the Centre's nurse. I say this in spite of the high infant mortality rate recorded in this Report because I know intimately the deplorable conditions under which a high percentage of the population have been forced to live.

Rising costs and a fixed income have compelled some restrictions on membership of the Centre and on the size of issues since the outbreak of war with the intention that benefit should be continued to the maximum degree possible to those most in need in spite of financial stringency.

PREVALENCE AND CONTROL OF INFECTIVE DISEASE

The entire absence of epidemic infective disease during 1939 provides the following Table of incidence—of which, in a population of over twenty thousand, especially in a seaport town also in direct land contact with a foreign country, any public health department might be justly proud.

The years from 1935 onwards have provided 241—177—419—856 and 93 cases of notifiable infective diseases.

QUARTERLY INCIDENCE OF NOTIFIABLE INFECTIOUS DISEASES
CIVIL POPULATION.

Disease	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total	Deaths.
Pulmonary Tuberculosis ..	4	3	6	3	16	9
Chicken Pox	7	15	9	1	32	—
Scarlet Fever	2	—	—	3	5	—
5th Disease.....	3	—	—	—	3	—
Enteric Fever	1	—	2	2	5	1
Puerperal Sepsis	1	—	1	—	2	1
Measles	1	2	2	—	5	—
Diphtheria	1	4	4	10	19	—
Dysentery.....	—	—	—	3	3	—
Poliomyelitis.....	—	—	—	3	3	—
Totals... ..	21	24	24	25	93	11

CASES LANDED FROM THE BAY OR BROUGHT INTO
THE TOWN FOR TREATMENT.

Disease	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total	Deaths
Chicken Pox.....	2	—	—	—	2	—
Pulmonary Tuberculosis	1	1	—	—	2	2
Undulant Fever....	—	1	—	—	1	—
Enteric Fever	—	—	4	2	6	2
Cerebro-spinal Meningitis	—	—	—	2	2	—
Totals	3	2	4	4	13	4

Age and Sex incidence of Notifiable Infectious Diseases amongst Civil Population during 1939.

Notifiable Disease.	NUMBER OF CASES NOTIFIED.														Districts.			Total cases re- moved to Hospital.	
	At all Ages	Under 1.		1 and under 5.		5 and under 15.		15 and under 25.		25 and under 45.		45 and under 65.		65 and Over.		North.	Central.		South.
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
Pulmonary Tuberculosis	16	—	—	—	—	—	1	2	5	5	3	—	—	—	—	14	2	—	
Chicken Pox...	32	2	—	1	4	8	15	—	1	—	1	—	—	—	—	25	7	—	
5th Disease	3	—	—	—	—	1	1	—	—	—	—	—	—	—	—	2	1	—	
Scarlet Fever	5	—	—	—	—	2	3	—	—	—	—	—	—	—	—	5	—	—	
Enteric Fever	5	—	—	—	—	—	—	1	2	—	2	—	—	—	—	5	—	2	
Puerperal Sepsis	2	—	—	—	—	—	—	—	—	—	2	—	—	—	—	1	—	—	
Measles	5	—	2	1	1	—	—	—	1	—	—	—	—	—	—	—	—	1	
Diphtheria	19	—	—	4	3	5	5	—	2	—	—	—	—	—	—	4	—	—	
Dysentery	3	—	—	—	—	2	—	—	—	—	—	—	—	—	—	1	18	—	
Poliomyelitis..	3	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	1	2	
Totals	93	3	2	7	9	18	25	4	11	5	8	1	—	—	—	3	77	13	
																		10	

Monthly Notifications of Notifiable Infectious Diseases during 1939. — Civil Population.

Months.	Pulmonary Tuberculosis		Chicken Pox		Scarlet Fever		5th Disease		Enteric Fever		Puerperal Sepsis		Measles		Diphtheria		Dysentery		Polioomyelitis	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
January	2	1	1	—	1	—	3	—	1	—	1	—	—	—	—	—	—	—	1	—
February	1	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
March	1	2	5	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	2	—
April	1	—	8	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—
May	—	1	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
June	2	1	9	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
July	3	—	6	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
August	1	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
September	2	3	1	—	—	—	—	—	1	—	—	—	—	—	3	—	—	—	—	—
October	2	—	—	—	—	—	—	—	1	—	—	—	—	—	2	—	—	—	1	—
November	1	1	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—
December	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals...	16	10	32	—	3	—	5	1	2	1	2	1	5	—	19	—	3	—	3	—

Pulmonary Tuberculosis:

Sixteen notified cases are equivalent to an incidence rate of 0.8 per 1,000. There were ten deaths reported from this cause. Three cases were notified in the death certificate only and 14 of the notified cases were under 35 years of age.

I am by no means satisfied that notification is complete—the death cases alone justify this statement; and I feel that, even with the limited facilities for special treatment yet available, this fact is greatly to be deplored.

Circumstances connected with the war were such that the Government apparently felt that others than the sick had a better claim to occupancy of the newly completed King George V Memorial Hospital for Diseases of the Chest. The war also demands economy of paper—let us leave the comment at that.

Venereal Disease:

Forty-eight cases, of whom 19 were merchant seamen, were treated at the Colonial Hospital. Diagnosed infections are recorded in the report of the City Analyst and Bacteriologist.

Vaccination:

Four hundred and twenty-five primary and 578 re-vaccinations were performed during the year: of the latter 335 were on children attaining the age of twelve years. The Public Vaccinator carried out 403 and 528 of these cases respectively.

The supply and storage of vaccine lymph has, with the assistance and advice of the Crown Agents for the Colonies and the authorities of the Lister Institute, London, been reorganised so that reasonably ample stocks are now kept available to meet considerable emergencies under all but the most unexpectedly unfavourable conditions.

Rabies:

Three cases of canine rabies were diagnosed during the year. Complete courses of prophylactic treatment were administered to those who had been in possibly dangerous contact with these animals. The Director of the Pasteur Institute of Morocco carries out the investigations leading to diagnosis and provides the advice regarding treatment for which I am greatly indebted.

RELIEF OF THE DESTITUTE AND AGED SICK

Outdoor Relief:—

The average number of persons in receipt of outdoor relief has been:—

1935	131
1936	131
1937	118
1938	107
1939	116

Indoor Relief:—

The average number of inmates of the "Home" was 43 males and 16 females.

SUMMARY OF INDOOR AND OUTDOOR EXPENDITURE FOR THE YEAR 1939

Indoor Relief:

Provisions	£1,051	6	6	
*Miscellaneous	498	15	1	
Maintenance of Buildings	139	6	6	
Rent	312	0	0	
Clothing and Equipment	92	6	5	
Light	43	11	2	
Water	74	9	0	
Hire of Telephone	12	0	0	
Insurance	1	10	0	
				£2,225 4 8
Days of subsistence	21,535			
Average No. of inmates	59			
Cost of feeding per head per day.....	11½d.			
Cost of feeding per head per year ...	£17 16 4			
Total all-in cost per head per day	2/0¾d.			
Total all-in cost per head per year	£37 14 3¾d.			

Outdoor Relief:

Meat (14,236 lbs.)	£355	18	0	
Milk, Cond. (9,017 tins)	167	4	5	
Milk, Evaporated (5,143 tins)...	89	19	7	
Money Grants	221	15	0	
Printing	3	0	0	
				£837 17 0
Salaries				385 0 0
Total expenditure on Indoor and Outdoor Relief...	£3,448	1	8	-

*Includes washing, cleaning, cooking, coal, charcoal, boat repairs, utensils, ice, medicine, tobacco for inmates, etc.

MOSQUITO CAMPAIGN RETURN FOR 1939.

[illegible]

Others include—Buckets, pits, gullies, under-ground tanks, flower-pots, catch-pits, storm-water drains, pumps, drinking troughs, jugs, old tins, grinding stones, concrete tanks and open channels.

SUMMARY

Tubs	47	1st Offences	123
Barrels	7	2nd Offences	1
Earthenware	18	3rd Offences	2
Vessels	196	4th or more	2
Others					(Cemetery)

Total ...	268
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Rats destroyed during 1939, by Districts
(not including H.M. Dockyard).

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
Town District	359	323	352	315	345	371	348	366	347	349	371	335	4,181
South „	268	250	271	243	212	232	265	251	290	234	200	224	2,940
North „	91	74	78	105	126	193	172	147	134	128	104	107	1,459
Sheds and Warehouses Waterport Wharf and Commercial Mole	15	20	37	41	44	69	51	35	68	58	31	51	520
Total... ..	733	667	738	704	727	865	836	799	839	769	706	717	9,100

Rats examined at City Laboratories during 1939.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
Non-Infected	7	11	8	4	14	7	9	6	6	11	6	6	95
Infected	—	—	—	—	—	—	—	—	—	—	—	—	Nil

Total number of Rats destroyed during 1939.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
Civil and Colonial Property } Trapped ...	717	662	729	692	711	851	823	789	826	759	700	710	8,969
} Poisoned...	16	5	9	12	16	14	13	10	13	10	6	7	131
H.M. } Trapped ...	148	131	149	138	149	155	154	182	168	149	164	178	1,865
Dockyard } Poisoned ..	13	15	20	9	14	12	20	12	10	35	27	11	198
Total.....	894	813	907	851	890	1,032	1,010	993	1,017	953	897	906	11,163

Number of poisoned baits laid by Rat Catchers during 1939.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
2,952	3,189	2,860	3,782	3,765	2,929	2,991	3,598	3,288	3,287	3,399	2,936	38,986

MEDICAL WORK FOR THE COUNCIL

The following numbers of men have been examined prior to their employment by the Council:—

January	40
February	10
March	15
April	28
May	25
June	10
July	14
August	14
September	8
October		3
November	18
December	5
Total ...							190

SERA AND VACCINES

Stocks of the following sera and vaccines are maintained:

Anti-Streptococcus Serum
 Anti-Anthrax Serum
 Anti-Meningococcus Serum
 Anti-Dysentery Serum
 Diphtheria Antitoxin
 Tetanus Antitoxin
 Staphylococcus Vaccine
 Anti-Rabic Vaccine
 Calf Lymph
 Tuberculin (veterinary uses).

DISINFECTION.

The following numbers of articles were dealt with at the Council's Disinfecting Station during the year :—

Month	Beds and Mattresses	Bolsters and Pillows	Blankets and Quilts.	Sheets	Counter-pains	Sundries.	Totals.
January	35	36	25	23	—	21	134
February	30	10	17	18	—	10	85
March	13	—	—	—	—	13	26
April	18	22	20	16	—	34	110
May	20	4	4	2	—	14	44
June	37	12	11	14	—	38	112
July	41	29	21	36	—	26	153
August	18	10	12	10	—	22	72
September	23	14	14	12	—	23	86
October	22	11	9	7	1	17	67
November	9	11	9	12	—	53	94
December	16	12	9	11	—	15	63
Totals	282	165	151	161	1	286	1,046

Sixty-seven premises were disinfected on account of the occurrence therein of cases of infective disease or for the destruction of vermin.

The number of disinfections carried out in stables, amounted to 170.

AMBULANCE SERVICE

The Council now provide a continuous day and night service which includes the removal of street accident cases, cases for operation, etc., in addition to the conveyance of cases of an infective nature.

The number of cases conveyed during the year was as follows:—

	Local cases.	Bay cases.
Pneumonia	1	1
Diphtheria	4	—
Enteric Fever	5	1
Appendicitis	9	7
Malaria	—	1
Tubercular Meningitis	1	—
Erysipelas	2	—
Dysentery	—	3
Injuries	28	8
Plèurisy	3	1
Influenza	3	2
C.S. Meningitis	1	1
Puerperal Fever	1	—
Venereal Disease	1	1
Dead Bodies	10	—
Miscellaneous	120	24
	<hr/>	<hr/>
Totals	189	50
	<hr/>	<hr/>

SANITARY CIRCUMSTANCES OF THE DISTRICT

I am indebted to the City and Water Engineer, Mr. W. H. Pearce, O.B.E., M.C., M.Inst.C.E., F.S.I. for assistance in the preparation of this section of the Report, and also to Mr. H. St. C. Garrood, M.C., L.R.I.B.A., Crown Surveyor and Engineer.

Rainfall and Water Supply:

Average of recorded rainfall on various Council's gauges situated at different levels=28.79 inches from January to December, 1939.

The highest recorded intensity was on the 25th November, amounting to .32" in 10 minutes=1.92" per hour.

Collection of rain water from catchments was 15,577,974 gallons.

Potable water pumped into reservoirs from Wells Nos. 8 and 9 was 13,426,626 gallons.

The Supply of Potable water was as follows:—

To the Shipping	3,586,798 Gallons
„ „ Town, etc.	20,444,619 Gallons
Total	<u>24,031,417 Gallons</u>

A quantity of 427,900 gallons of potable water was imported from Algeciras during the year.

Brackish Water pumped during the year = 350,224,500 gallons.

Collection & Disposal of House Refuse:

A considerable increase was recorded in the amount dealt with as was also the case with the free collection of stable manure. Collection is daily, but twice daily in the hot weather.

Sewerage:

The sewers generally have been well maintained and the large flat main outfall sewer gives much less trouble than formerly.

Developments at North Front may lead to a new lay out of the limited drainage arrangements in that area.

The sewage pumping station now has storm reserve diesel engined pumping sets installed.

The Admiralty works of reclamation in the Harbour are not likely to improve the efficiency of various storm outfalls and sea water flushing intakes.

Street Cleansing:

This work has been satisfactorily performed but constant and careful supervision is found necessary to prevent slackness and dirty streets.

The work is done on the individual district beat system with covered receptacles emptied twice daily by circulating lorries.

A new gully emptier has been bought and has several innovations in design and use.

Public Highways:

Owing to extreme pressure of passive defence work the upkeep of public highways had to be rather neglected and leeway must be made up in 1940.

A good road improvement and widening was carried out at Line Wall Road due to the reconstruction of Central Garage and other building developments, and a main entrance to Irish Town off Line Wall Road has been improved considerably.

Disinfection:

A new disinfecting station for the Public Health Department is nearly completed at the Central Highways Depot.

Baths:

Pending reconstruction temporary slipper baths have been built in the old Fire Station building at Commercial Square.

Building:

King George V Memorial Hospital for diseases of the chest, with its attendant out buildings, was completed.

Four Crown properties were re-conditioned and re-roofed.

Two new houses for officers of the City Council were completed.

A temporary hutment scheme of considerable size was commenced for the alleviation of the more grossly insanitary conditions of refugee housing.

Until the commencement of the war there was considerable activity in private buildings enterprise.

Harington Building, Cumberland Road, was completed as the advance instalment of work foreshadowed by the Commission on Housing, etc., appointed by General Sir Charles H. Harington, G.C.B., G.B.E., etc., when Governor. This building accommodates twenty four families each in a three-roomed tenement with bath room—W.C. and small private balcony.

Entomology:

The "processionary" caterpillar (*Thaumetopea pityocampa*) has arrived as a new comer in Gibraltar. Not only does this caterpillar cause serious damage to the pine trees, but it produces a marked and painful, though not dangerous, temporary swelling of the skin of those touching it.

Housing:

The Home Report on Housing was published in March 1937.

At the end of October in that year the recommendations made in that Report were accepted by the British Government.

The already printed draft of a Housing Ordinance to give effect to that Report was finally approved by the City Council on the 16th June, 1938 and was submitted to the Government here.

Shortly after the outbreak of war the Government declared that the Housing Scheme must be held in abeyance till the termination of the war.

In December 1939 the Council, at my request, again asked the Government for the publication of the Ordinance; pointing out that, though actual building might be impossible, a great deal of administrative work and planning has in any case to be done after passage of the law before the scheme can be put into proper effect, and that this work can be done, even during war, in preparation for the real starting of the scheme.

At the end of March 1940 it seems permissible at least to ask whether the Government intend permanently to obstruct the passage of this Ordinance, and why.

When introducing the first consolidated Public Health Act in England in 1875 Benjamin Disraeli concluded that "the first consideration of a minister should be the health of the people." Allowing due weight to considerations of defence, and to all the disturbances resultant from crises and actual war, I take leave to suggest that Disraeli's dictum does, and will con-

tinue to hold good in the true government of peoples. It appears to me, and I have not been entirely free of additional work myself on these latter accounts, that twenty-one months—or even six—is an overlong delay for the production from the recesses of a Government office of a piece of legislation already agreed on in draft form.

It may seem that I write strongly—even bitterly; but after working hard for nearly three years in order to arrive at the state of a “Report” on a matter acknowledged by all to be of vital importance, and having knowledge that the City Council have not ceased to urge both its importance and their readiness to deal with it at the earliest moment at which legal power to do so is conferred on them, I feel that I am at least entitled now, at the end of over five years, to point out to those citizens who, remembering the existence of the Report, constantly ask me when something may be done, that the facts are as I have recorded them here. Explanation must be left to others.

These are strong words and I have no wish that it should be thought that I write them in the knowledge that I may have been removed from here before they appear in print. I have written just as, if not even more strongly before—though perhaps not for publication. But I cannot neglect what I feel to be my duty to the City, and particularly to those who are least able, though most needful, to make themselves heard in this matter; primarily so because, as I know to my cost, they are ignorant of the true facts.

Queen Elizabeth of England told Parliament in 1585 that “we must suppose that God would never have made us but for “a better place and of more comfort than we find here.” Were such the sole standard of religious faith I can imagine few places that should have more trust in the Almighty than Gibraltar. There, perhaps, lies a part of the fault. Apart from those whose circumstances compel them to endure them, or those whose immediate business brings them into intimate contact with the housing conditions of the working classes of this Colony, I am convinced, from my own personal experience and knowledge, that comparatively few citizens, whether devoted to public or to private life, really know what those conditions are.

Slum property is profitable—speaking generally. Energetic, State-aided housing schemes are apt—if not certain—to disperse the sources of income of many landlords, in some cases with apparently poor capital return. But if we can say nothing else of civilisation to-day we can at least say—again

generally—that all forms of Government, democratic or autocratic, are realising more and more not only the right of their own working classes to be treated as human beings, but also the value to the State of bringing into practice this realisation.

It is stated freely, and there is no reason why this should not be repeated, that Gibraltarian labour is not of the quality, either in foot-pounds of mechanical toil or in actual technical skill, that can be found in other parts of Europe or the world. I always ask such critics what they would produce themselves did they have to live with a wife and three grown and growing children in one room—and nothing more—some fourteen feet square on a wage of less than thirty and a rent of five shillings a week, with no provision for sickness, unemployment or old age and a cost of living not greatly less than that obtaining in England.

If by the time this is printed the Housing Ordinance has come on to the Statute Book then what I have written will serve to remind readers of the difficulties which have obstructed this measure of reform in the past and to emphasize the perseverance which will undoubtedly be required to bring the complete scheme to fruition.

SUMMARY OF WORK DONE BY SANITARY INSPECTORS DURING 1939

Complaints received:	221
Premises inspected:	
Number of Statutory Notices served	2
Number of Informal Notices served	156
Nuisances found:	
Minor defects in drains	130
Obstructed drains	331
Minor defects in water closets	262
Defective water closet fittings	322
,, water fittings	278
,, rainwater pipes	58
,, eaves-gutters	75
,, roofs	57
,, yard paving	32
Dampness	30
Premises dirty	158
Defective or no dustbin	179
Other minor defects	1048
Suspected pollution of water in underground tanks...	9

Underground tank not insect proof	5
Brackish water tank not insect proof or no cover.....	5
Brackish water running to waste	192
Miscellaneous Services:	
Samples of Food and Drugs taken for analysis	54
Premises disinfected for infectious disease	65
Premises disinfected for vermin, etc.	2
Stables disinfected	170
Articles disinfected at North Front Disinfecting Station	1046
Visits of enquiry re Infectious Disease	74
Visits paid to milk shops	233
Visits paid to eating houses	248
Visits paid to mineral water factories	228
Visits paid to common lodging houses	49
Visits paid to premises on which notice for abatement of nuisance has been served and are revisited for the purpose of ascertaining if requirements have been complied with	1494
Cases removed in Ambulance:	
Local	189
Bay	50
Vaccination notices served	365
Legal proceedings instituted	6
Foodstuffs, etc., condemned as unsoundlbs.	32,406
Street water fitting found defective	54

COMMON LODGING HOUSES

The only Common Lodging House at present existing in Gibraltar was visited at intervals and in no instance was an infringement of the Bye Laws noted. No cases of disease of an infective nature occurred in it during the year.

FOOD

The following articles were destroyed as unsound at the request of their owners:—

Sausage	240 lbs.
Ham (tinned)	1,174 „
Ribs (salted)	96 „
Pigs Feet	118 „
Corned Pork	52 „
Bacon	3,123 „
Ox Kidney	513 „
Condensed Milk	24,816 tins
Tomatoes	5,376 lbs.

No legal action has been required in respect of unsound food except in the case of milk. Full details are recorded in the Report of the City Analyst, which follows.

Civil Defence. Air Raid Precautions:

This is not the place in which to write in detail of the works of planning, construction, organisation, administration and equipment of the services which have become necessary for the protection of the civil population. The burden of planning and organisation has, rightly and of necessity, fallen on the shoulders of a few; the manning and working of the scheme has been taken up wholeheartedly by all classes of the population. Responsibilities and additional work have been heavy, but I think it can be said that Gibraltar has achieved a civil defence scheme second to none in the Empire in completeness and efficiency.

Markets and Slaughterhouses:

Remodelling and modernisation of the slaughter house and its fittings have been completed.

The provision of white glazed tiling to the butchers' stalls in the Markets has left only one item of a programme of hygienic improvements on which I embarked unfinished. It is to be regretted that wartime financial stringency has not permitted the re-modelling — now well overdue—of the fowl market.

Condemnations of animals slaughtered locally during 1939.

Cattle:—

	In whole.	In part
Cysticercus bovis	33	85
Tuberculosis	3	1
Pleurisy & Pericarditis (localised)	—	2
Antinomycosis	—	1
Umbilical abscess (localised)	—	2
Dropsy & Acute Nephritis	1	—
Fever & Jaundice	2	—
Discolouration of fat	—	1
Bruising	1	2

Sheep:—

Emaciation	13	—
Abscesses (multiple)	1	—
Abscess (localised)	—	1
Ruptured liver	1	—

Pigs:—

	In whole.	In part.
Tuberculosis	2	13
Dermatitis	—	10
Bruising	—	5
Abscesses (localised)	—	7
Erythema	—	2
Xanthosis	1	—

Foot and Mouth Disease:—

Nil.

Number of Animals Slaughtered:—

	1935	1936	1937	1938	1939
Cattle	1,446	1,926	2,106	2,269	2,715
Sheep	1,154	1,121	813	1,022	2,073
Pigs	676	746	557	697	1,148

Imports of Frozen Meat (in pounds):—

	Beef.	Mutton.	Pork.
1935	678,264	178,761	128,564
1936	996,799	207,791	138,923
1937	1,101,228	231,866	261,823
1938	999,715	223,907	172,201
1939	1,027,363	217,014	177,725

The total quantity of Frozen Meat, including edible offal, imported during 1939 was 1,570,975 lbs. (1936—1,441,462; 1937—1,711,671; 1938—1,521,489).

REPORT OF THE CITY ANALYST AND BACTERIOLOGIST FOR THE YEAR 1939

I have pleasure in submitting my twentieth annual report on the work carried out in the laboratories of the Public Health Department during the year 1939. The total number of pathological specimens and samples of all classes examined either chemically or bacteriologically or both was 5,612. The high rate of activity of the laboratories continued and comprised pathological specimens received from (1) Colonial Hospital; (2) Military Hospital and Veterinary department; (3) Royal Navy; (4) Medical practitioners of Gibraltar; Public Health specimens (including samples taken under the "Food and Drugs (adulteration) Ordinance"; miscellaneous samples from various departments of the City Council and the general public; toxicological and forensic examinations for H.M. Coroner and police; also the testing of oil carrying tankers for inflammable gas.

No serious outbreak of epidemic disease occurred to swell the number of specimens which still remains high.

Blood sugar estimations have increased by 155 over last year's figure and reached a total of 590; other blood examinations (Wassermann) increased by 293.

A still closer supervision of Gibraltar's drinking waters increased the samples by 61.

The number of adulterated milk samples was reduced from fourteen in 1938 to six during 1939; this is satisfactory.

In connection with the war, as a precautionary measure, the blood group of 63 prospective donors was determined and materials were submitted for identification by the Contraband Control Offices.

The City Analyst has been appointed "gas identification officer" under the A.R.P. scheme.

A large proportion of the laboratory work was directly connected with the health of the people.

The report is divided into four parts:—

Part I.—Food and Drugs, Public Health Ordinance.

Part II.—Miscellaneous.

Part III.—Bacteriology, chemical pathology and public health work.

Part IV.—Testing of ships for inflammable gas.

PART I.—FOOD AND DRUGS.

"Food and Drugs (adulteration) Ordinance."

The number of samples taken officially by the sampling officer was 53. It was 89 the previous year. The rate of sampling per 1000 inhabitants was 2.8. Samples received included goat's and cow's milks, tinned milk, ice cream, mineral waters, edible oils and various tinned products, general groceries, wines and spirits and assorted drugs. Of the 19 samples of milk received 5 were below the statutory limit in milk fat, non-fatty solids, or both. The vendor of one grossly adulterated goat's milk was fined twenty pounds. Four convictions for adulterated milk were obtained, fines and costs amounted to £42.12.0.

One sample of jam was artificially coloured with red aniline dye; and one sample of tincture of iodine was deficient in iodine by 2.9 per cent.

In all cases of adulteration of food or drugs where the City Council deemed it advisable, legal proceedings were instituted.

Details of adulterated samples:—

<i>Lab. No.</i>	<i>Sample</i>	<i>Adulteration</i>	<i>Remarks.</i>
699	Goat's milk	fat abstracted 13.7 %	Fined £2. 16. 0. and costs £2. 4. 0.
703	Goat's milk	fat abstracted 26 %	declared skimmed
892	Jam	artificially coloured	No case.
1266	Goat's milk	fat abstracted 10 %	Fined £5 with costs £2. 4. 0.
1267	Goat's milk	(added water 25 %) (fat abstracted 22 %)	Fined £20 with £2. 4. 0. costs
1745	Goat's milk	added water 31.5 %	Fined £6 with £2. 4. 0. costs
1565	Tinct iodine	Iodine deficiency 2.9 %	no case

No sample of imported milk was found not to have been boiled nor, as in other years was evidence obtained of quite small amounts of unboiled milk in any sample. This is satisfactory as milk is an excellent medium for importing infections of enteric fever, dysentery and undulant fever, etc., into Gibraltar.

The average composition of unadulterated goat's milk was:—

Milk-fat	3.93 %
Non-fatty solids	8.56 %

The statutory limits for goats' milk are, fat 3.5 % and for non-fatty solids 8.0 %.

A brand of unsweetened condensed milk newly imported was correctly labelled with genuine percentage composition as follows: Water 67.62, Fat 9.55, Lactose 10.90. The tin therefore contained the equivalent of 2.3 pints of milk as declared on label.

Samples of butter, margarine, soya bean oil, and olive oil were all found to be genuine. Cheese sample contained fat 23.35 per cent which was genuine butter fat. Samples of tea and coffee were also genuine.

Drugs:

These samples comprised tartaric acid, aspirin, tinct iodine, tinct of quinine, Enos fruit salt, and mercury ointment and boric ointment, and were all accurately dispensed with the exception of one sample of tinct of iodine which was a little deficient in iodine.

Food samples (unofficial):

- (1) A sample of milk from a privately owned cow contained only 2.6 per cent of fat. In other respects it was normal.
- (2) A sample of sugar contained no starch or farinaceous matter, glucose or leavening substance. It was pure cane sugar.
- (3) A sample of green tea contained no copper salts, arsenic or foreign leaves and figures of analysis conformed to those of genuine tea.
- (4) The bad taste complained of in a sample of butter was due to rancidity and was condemned.
- (5) An investigation into the cause of "blowing" of tins of meat (meat loaf) was found to be due to the action of micro organisms, both aerobic and anaerobic classes of bacilli were isolated. The inside of the tins was blackened and corroded.
- (6) Spanish beer produced the following figures of analysis.

	<i>per cent</i>
Alcohol (wt)	2.28
Total solid residue	4.09
Ash	0.11
Salt (sod. chloride)	0.072
Reducing sugar	0.79
Volatile acids	
(as acetic acid)	0.009
Fixed acids	
(as lactic acid)	0.085

PART II.—MISCELLANEOUS.

Samples examined under this heading are as follows:—

- (1) Two samples of butter were submitted by the M.O.H. to determine cause of bad taste. This was found to be due to rancidity.
- (2) Four samples of coal—for analysis and calorific power.
- (3) One sample of pitch from C.E. for identification and the determination of melting point and softening point for possible use in road construction.
- (4) Two samples of lubricating oil—advice was sought as to opalescent appearance. The abnormality was due in both instances to the presence of over 10% of water.

- (5) One sample of distilled water to determine if suitable for batteries approximately 15 per cent of sea water had gained access.
- (6) One sample of Roumanian fuel oil to determine viscosity and flash point.
- (7) One sample of lamp black contained neither arsenic or metals.
- (8) The cause of difficult lathering of a well water was due chiefly to the presence of salt and partly due to lime.
- (9) Complete analyses was made on two samples of excavated earth submitted by the Superintending Civil Engineer.
- (10) Examination of a specimen of charred grass showed no evidence of the presence of any foreign material likely to have been the cause of fire on a ship.
- (11) Material submitted as the possible cause of fire was the burnt ash of vegetable origin and not derived from an inflammable chemical.
- (12) Whitish powder marked Gelsil was found to be aluminium silicate.
- (13) One sample of condensed milk submitted by a private firm.
- (14) Two samples of granulated sugar were unadulterated.
- (15) One sample of green tea was genuine.

Blood Grouping:—

Persons who had kindly volunteered to give their blood for transfusion in case of necessity during the war presented themselves at the laboratories. The blood group to which each belonged was determined on 63 people. They were Gibraltarians through the Chief Surgeon, Colonial Hospital and men of the Royal Navy for that service.

They were grouped as follows:—group A=27; group B=3; group AB=4 and group O=29. The Kahn test was done also on each prospective donor's blood specimen. The sera used was prepared and issued by the British Red Cross Society—Blood Transfusion Service and guaranteed potent.

Toxicological and Forensic Examinations.

- (1) Barbituric acid group of narcotics was extracted from the stomach contents of a man.
- (2) Neither liver or kidney of a woman contained arsenic or phosphorus.

- (3) Neither blood or seminal stains were detected on three articles of a child's clothing submitted by Commissioner of Police.
- (4) Contents of stomach of a woman who committed suicide were sent by the Police Surgeon. The poison detected was cyanide and the amount recovered was 2.02 grams hydrocyanic acid.
- (5) Arsenic and pathogenic bacilli were not found in samples of sausage roll and cold roast meat.
- (6) Lead and oil were not detected in a sample of water collected from a painted roof.

PART III.—BACTERIOLOGICAL, PATHOLOGICAL AND PUBLIC HEALTH WORK.

Variety and Number of specimens which come under this heading are listed below:—

	<i>No. of specimens.</i>
Drinking, and other water	356
Swabs: <i>C. diphtheriæ</i> , Vincent's organisms, &c.	370
Sputa: tubercle bacillus or causative organism ...	106
Blood:	
Widal—T/H, T/O, paratyphoid "A" and "B" and <i>Br. melitensis</i>	204
Goats—Widal for undulant fever	160
Total count	98
Smears for malaria	20
Culture—enteric, streptococcus, &c.	5
Sugar estimations, sugar tolerance test	590
Urea estimations, urea concentration factor...	60
Wassermann reaction	1134
Sedimentation rate of red cells	10
Icterus index, Van den Bergh	1
Cerebral spinal fluids—bacteriological, cytology, protein, Sod. chloride, sugar, Was- sermann	24
Pleural fluids—Cytology, organisms	15
Urines—Analytical and bacteriological exams....	1800
Urine—urea for urea concentration test	67
Pus—Gonococci, T.B. &c.	113
Sera from V.S. for <i>Tr. pallida</i> (dark ground)...	9
Fæces—bacteriological for enteric, dysentery, occult blood	106

Breast milk—chemical analysis	27
Rats: examined for plague	95
Gastric contents	3
Guineapig inoculations virulence test, T.B. &c.	14
Autogenous vaccines and stock vaccines prepared	14
Cow's milk for presence of T.B.	38
Miscellaneous	21
	<hr/>
	5,460
	<hr/>

Diphtheria and Vincent's Angina:

Hoffmann bacillus is not regarded when examining cultures from swabs for Klebs—Loeffler bacillus for diphtheria. Of the large number of throat swabs received twenty-one new cases of diphtheria were reported. Two nasal swabs also showed presence of *C. diphtheriæ*. There were no positive contact swabs. Virulence tests by guineapig inoculation were resorted to when patients persisted in carrying the germ in spite of treatment—two of such cultures were fully virulent. Throat swabs of convalescents are repeatedly examined until the absence of the organism is reported on three consecutive swabs. On no occasion during the year was the presence of the organisms of Vincent's Angina reported.

Tuberculosis:

Various specimens were received for detection of the bacillus causing this disease. They include sputa, cerebro spinal fluid, pleural fluids, urines, pus and cow's milk. Of the 106 sputa examined 23 contained the tubercle bacillus; it was also found in one specimen of fæces and one C.S.F. In suspected case when the bacillus cannot be found in a specimen guineapig inoculation is resorted to. In one instance animal inoculation revealed the disease. Milk samples (38) taken from several cows living on the Rock are tested regularly at intervals for tubercle bacillus. It was not found during 1939.

Venereal Disease:

The usual examinations of blood and cerebro spinal fluid by Wassermann and Kahn reactions, sera from primary sores for the presence of *Tr. pallidum* by "dark ground" method, and pus smears for gonococci were done on a large number of specimens. Of 1,134 Wassermann's 151 were strongly positive; of 116 pus smears examined for gonococci 20 were positive, and *Tr. pallidum* was found in 3 out of 9 sera. Urine specimens are sometimes examined for gonococci.

Malaria:

The malaria parasite was found in two of the blood smears of twenty patients. They were both imported cases.

Dysentery:

Many stools were bacteriologically examined for the presence of and identification of the type of organism causing this disease. Dysentery due to *B. Shiga* and *Amœba histolytica* was not met with during the year, but *B. dysenteriae* "Flexner" was isolated on three occasions and Schmitz bacillus on three occasions. The early examination of dysentery stools is thought desirable as Schmitz bacillus, it was found, very quickly disappeared from patients' stools early in the disease. As to the pathogenicity of Schmitz bacillus, and some investigators are doubtful, it was found in large numbers in true dysentery stools when all other known pathogenic organisms were absent. This is strong evidence that it was the causative organism in some instances. Many stools examined did not contain blood or pus cells, were diarrhœic in character and contained no pathogenic organism. When possible serological testing is carried out on isolated organisms of known pathogenicity for confirmation. The number of stools examined was 106.

Enteric and undulant fever:

All human blood specimens which require agglutination tests were examined for typhoid (H and O) fever, paratyphoid (A and B) fever, and undulant fever. Formolised standard suspensions of these organisms obtained from Oxford University are used. Of the 177 blood serum specimens examined by "Widal" diagnostic agglutination was reported on 19 for *B. typhosus*, and four for *Br. Melitensis*. In connection with these diseases stools, blood and urine of patients and "contacts" were also examined culturally for the presence of the causative organism. Convalescent patient was again examined to ensure he has not become a "carrier." Three negative stools being required. Serological tests on the blood of all those about to be employed in handling food materials such as waiters, bakers, etc. By this precautionary measure a possible "carrier" of *B. typhosus* would be detected before he could spread the disease.

Blood Examinations, etc.:

A variety of examinations comes under this heading and include renal efficiency tests, blood counts and cultures, sugar tolerance tests and other blood sugar determinations, examination of gastric contents, cytology, chemical and bacteriolo-

gical examination of cerebro-spinal fluid, and pleural fluids, general and bacteriological analysis of urines, estimations of urea and calcium in blood, Van den bergh's test and icterus index in jaundice and rate of sedimentation of red blood cells, etc., etc.

The number of blood sugar estimations performed was 590 and five persons presented themselves for complete sugar tolerance test. Blood sugar estimations on those attending the diabetic clinic are done monthly.

In connection with renal diseases 42 patients were examined by renal efficiency tests, i.e., for urea concentration factor 36, and for urea concentration test 6, involving 60 blood urea estimations.

Drinking Water:

Strict supervision of Gibraltar's ~~di~~etic waters necessitated the bacteriological testing of numerous samples. The City's public supply is tested monthly, each reservoir separately. It remained free from fæcal pollution during the year. Water from tanks belonging to Military and Navy authorities were also examined and numbered 162. Many houses collect their private supply of drinking water from the roof. This is stored in underground tanks. This sources of water is at times liable to pollution. When contamination is suspected samples are referred to the public health laboratories. Three hundred and fifty-six samples of water were received and reported on during 1939.

Goats:

All of the goats living on the "Rock" were tested serologically for evidence of undulant fever. No goat's blood of the 160 examined reacted positively to the agglutination test.

Rats:

Ninety-five rats which were trapped on the Quayside were examined for plague—all were negative.

Autogenous Vaccines:

These are prepared in cases of eczema, and nasal and bronchial catarrh at the request of medical practitioners for their private patients. Fourteen of such vaccines were prepared, and dispensed in ampoules of increasing doses.

Animal inoculations:

This practise is chiefly confined to the inoculation of *C. diphtheriæ* to determine its virulence. Animal inoculation of sputum, pleural fluid C.S.F. and urine is sometimes necessary when in suspected cases the presence of tubercle bacillus cannot be demonstrated by the microscope.

Distribution of Specimens:

Specimens received during the year were derived as follows:—from Colonial Hospital 1,553; Military Hospital 900; Naval authorities 261; and from medical practitioners, Public Health Dept., and samples from the general public 2,898; total 5,612.

PART IV.—TESTING OF SHIPS.

The City Analyst is responsible for the testing of compartments of oil carrying tankers for inflammable gases. Gas free certificates are necessary before work can be started on these ships in dry dock. One tanker was examined.

(Sd.) A. GEO. HOLBOROW, F.I.C.

City Analyst and Bacteriologist.

REPORT OF THE GOVERNMENT VETERINARY SURGEON, 1939

Contagious Disease:

This year, fortunately, there has been only once case of contagious disease occurring amongst the animals imported for food, and that was a pig which showed symptoms of Swine Erysipelas. The disease did not become evident until several days after its arrival in the abattoir pig-sheds. The carcase was burnt and the incontact animals were slaughtered forthwith and found to be fit for food. The infected pig-sheds were thoroughly disinfected and left vacant for two weeks. No further cases occurred.

Slaughter Cattle, Sheep and Pigs:

	<i>Imported.</i>				<i>Imported.</i>				<i>Local Supply.</i>		<i>Total.</i>	
	<i>From Morocco</i>				<i>From Portugal</i>							
Cattle	2,638	72	21	=		2,731	
Sheep	1,790	426	2	=		2,218	
Pigs	981	278	—	=		1,259	
	<hr/>				<hr/>						<hr/>	
	5,409				776						23	
	<hr/>				<hr/>						<hr/>	
											6,208	
	<hr/>				<hr/>						<hr/>	

The condition of the bulls and sheep arriving from Morocco was good during the season when grazing was plentiful, at other times poor and sometimes debilitated. The Moroccan pigs invariably arrive in very good condition.

Shortly after the outbreak of war the importation of slaughter animals from Portugal commenced. The animals were quite a different type. The cattle, on the whole, were bigger and in good condition but some of them were old and quite a number of them showed signs of having been used as draught animals. The sheep were a very mixed lot, varying from large rams to half grown lambs. They carried very heavy fleeces, which made the poor condition in which many of them arrived less noticeable. One sheep died of exhaustion and debility the day after arrival and in one consignment several were so emaciated that after slaughter they were condemned as unfit for food.

The pigs were not so good as those received from Morocco. They were generally speaking, fat but looked soft and flabby, whilst many of them had deformed feet and legs and suffered from lameness. Ten were so lame that they could not walk and had to be conveyed to the abattoir in a motor-van, and on humanitarian grounds were slaughtered at once.

In one ship that arrived from Faro, four pigs died during the voyage owing to overcrowding. The shippers and agents were warned about this case of gross cruelty and as a result later consignments were better accommodated.

Two bulls were injured in transit from Casablanca owing to rough weather at sea and had to be slaughtered on the quay.

Slaughter animals exported to Shipping:

Cattle	Nil
Sheep	82
Pigs	Nil

Buildings:

The cattle pen at Waterport, erected last year, although not quite large enough has been a great boon.

At the abattoir the new enclosure for sheep, which is under construction, is nearly finished, it is a useful type of building with cement troughs for food and water and will be an enormous improvement on the existing sheep pen. The other cattle shed and the piggery are satisfactory and kept in a sanitary condition.

Slaughtering:

In my last Annual Report I drew attention to the inhumane method of slaughtering pigs as practised at the Colonial Government abattoir, and the same remarks apply to the slaughtering of sheep.

On 21st July, 1939 I recommended that an "Electric Stunner" should be installed so that sheep and pigs could be rendered insensible to pain just prior to slaughter. In accordance with the Slaughter of Animals Act passed in England in 1933. I regret to have to report that the old inhumane method of slaughtering is still being used.

If shortage of funds is the reason for permitting this unnecessary suffering to continue, I would suggest that as a temporary measure a captive bolt pistol, as used in many slaughter houses and bacon factories, should be purchased. The approximate cost of a suitable pistol is £5.

Horses: (including donkeys)

No cases of contagious disease amongst horses have occurred during the past year.

<i>Imports.</i>		<i>Exports.</i>	
From Malta	3	To England	5 horses, 2 donkeys
„ Tangier	1	„ Tangier	2 horses.
„ Spain	1		

Dogs and other small Animals:

Three cases of rabies occurred during the year, and the diagnosis was confirmed by the Pasteur Institute, Tangier.

A rabid dog bit several other dogs, one of which developed the disease a few weeks later whilst under observation. Several people who had been in contact with the above cases received anti-rabic inoculations, under arrangements made by the Medical Officer of Health.

Imports and exports of Dogs and small Animals:

<i>Imports.</i>		<i>Exports.</i>	
From England	7 dogs, 2 cats.	To England	4 dogs
„ Malta	3 „	„ Malta	1 dog
„ Spain	2 „	„ Italy	1 „
„ Tangier	2 „	„ Egypt	1 „
„ Italy	1 „	„ Senegal	2 dogs, 1 cat and 1 monkey.
„ Singapore	1 „		
„ Spanish Morocco	6 apes.	„ Tangier	13 goats.

The Government Quarantine Kennels:

These had to be vacated some months ago, as the site was required for military purposes. A disused stable alongside the Veterinary Hospital at Rosia has been converted into kennels and provides better facilities than those which had to be vacated.

The number of animals that underwent quarantine for three months or less was:— 8 dogs.

The number of dogs, cats, etc. detained under observation after biting or scratching human beings was:—

Dogs 26 : cats 2 : monkeys 4.

The number of stray dogs and cats admitted to the kennel was:—*Dogs 78 : cats 17.

(*61 of these dogs were unclaimed and were destroyed).

With reference to the question of stray dogs; a few months ago I submitted suggestions for the amendment of the Dogs' Ordinance and dog licensing rules, which would enable stray dogs to be more readily traced and also reduce the expenditure wasted on their feeding and maintenance.

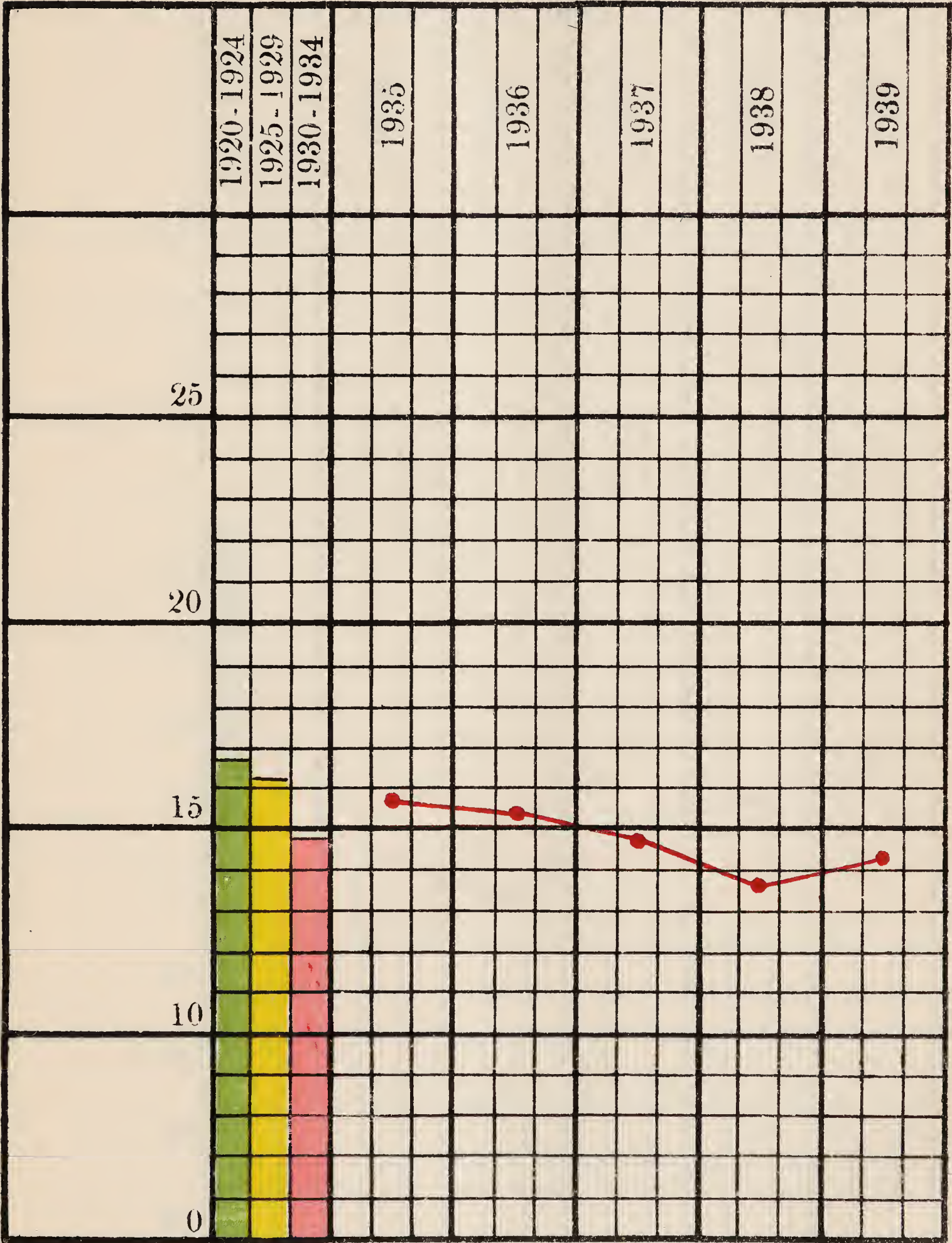
None of my suggestions have, up to the present been adopted.

Approximately 70 of the stray dogs and cats were conveyed in the G.S.P.C.A. motor side-car, from Central Police Station to the Government Kennels—Rosia.

This work was done gratuitously by the Society to assist the Police.

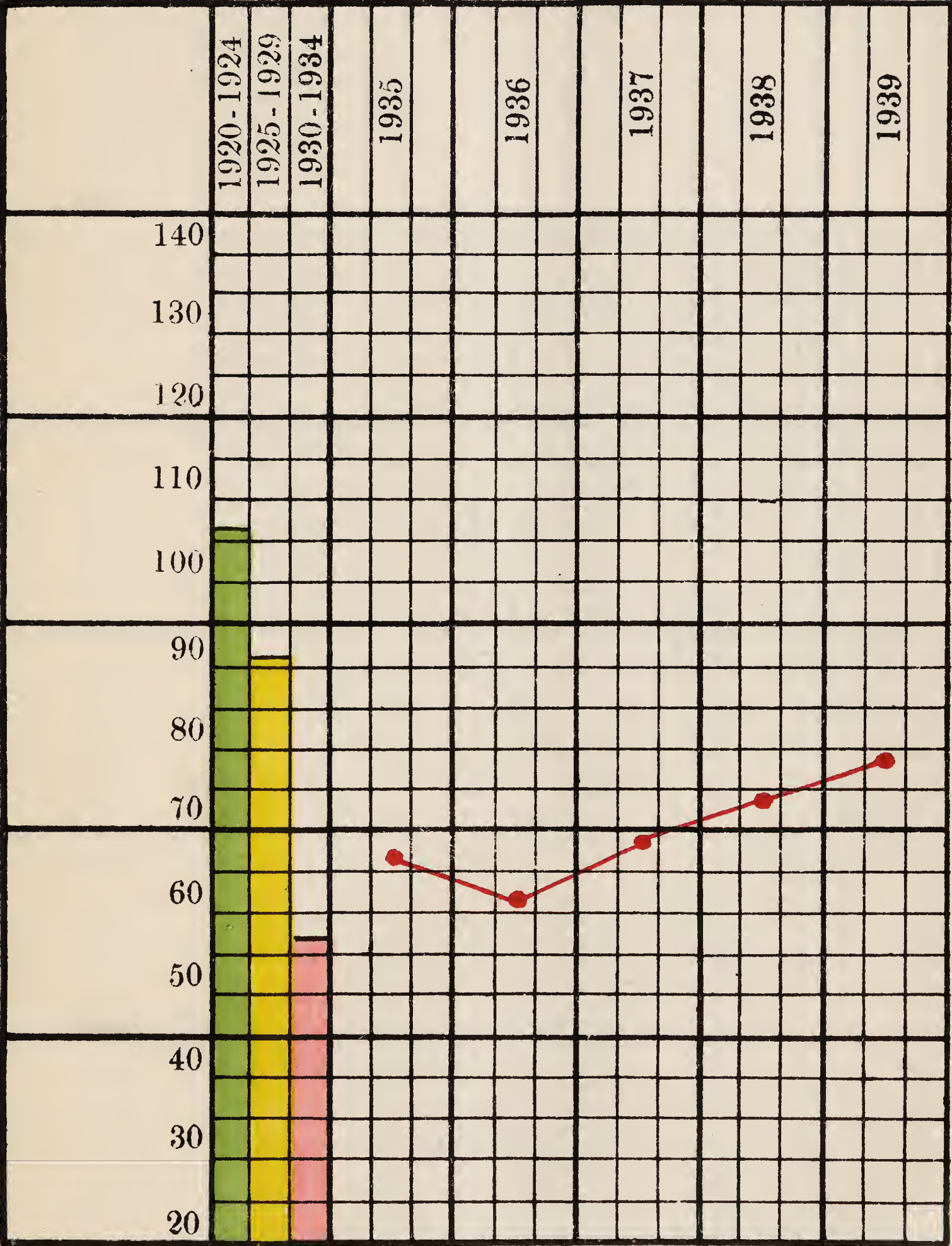
F. C. O'RORKE, F.R.C.V.S.,
Government Veterinary Surgeon,
Veterinary Adviser.

General Death Rate per 1,000 of Population (Total Civil)
 Gibraltar, for the Decennial Periods
 1920-1929 and 1930-1939.



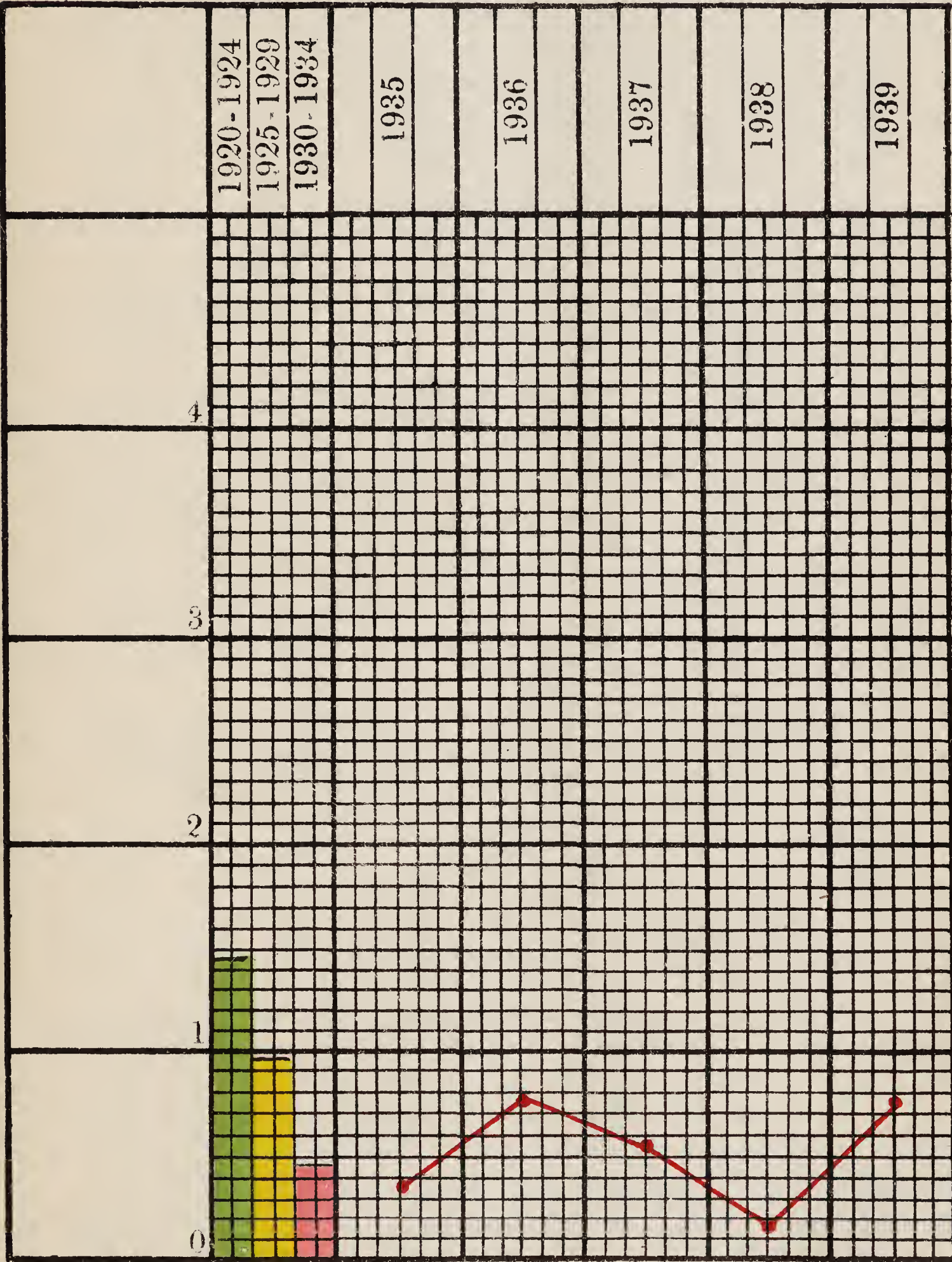
Average	{	1920-1924	16.68	1930-1934	14.79
		1925-1929	<u>16.24</u>	1935-1939	<u>14.82</u>
		<u>1920-1929</u>	...	<u>16.46</u>	<u>1930-1939</u>	...	<u>14.80</u>

Infantile Mortality per 1,000 Births, Gibraltar,
for the Decennial Periods
1920-1929 and 1930-1939



Average	{	1920-1924	106.9	1930-1934	57.4
		1925-1929	91.7	1935-1939	70.3
		1920-1929	99.3	1930-1939	63.4

Zymotic Mortality per 1,000 of Total Civil Population
 Gibraltar, for the Decennial Periods
 1920-1929 and 1930-1939.



Average	{	1920-1924	1.47	1930-193445
		1925-1929	<u>.97</u>	1935-1939	<u>.52</u>
		<u>1920-1929</u>	...	<u>1.22</u>	<u>1930-1939</u>	<u>.48</u>

